

FRANCIS HENRY SAMUEL ORPEN, J.P., of St. Clair, near Douglas Division of Herbert Colony, of the Cape Colony, F.R.A.S. and F.R.G.S., born 1824 October 22, eldest son of the Rev. Dr. Charles Edward Herbert Orpen, M.D., member of various literary societies, the philanthropic founder of the National Deaf and Dumb Institution at Claremont, near Dublin. (For lineage, *vide* Burke's *Landed Gentry*.)

Mr. F. H. S. Orpen married Sarah Anne, eldest daughter of Alexander Hugh Murray, Esq., of Colesberg, Cape Colony, and leaves a surviving family of four sons and three daughters.

Mr. F. H. S. Orpen was educated at Trinity College, Dublin. Member of the Commission of Land Surveyors for the survey of the Orange River Sovereignty (now the Orange Free State), 1850 June. Entered the service of the native chief, U. Waterboer, as surveyor-general and civil commissioner of Albania, 1867 September 14; and on the cession of the province of Griqualand West to the British Government was appointed civil commissioner and resident magistrate of the Division of Griquatonia, with charge of the Survey Department of the province, 1871. Appointed surveyor-general of Griqualand West, 1872 October 9; commissioner for investigating and defining native claims to land, 1875 January to June, and 1876 October and November. Commissioner for defining native locations and investigating land claims, 1877 February to June. Acting registrar of deeds, 1878 June to 1879 March. Inspector-general of schools, 1879 January to December; retired on pension 1881 January 13, in consequence of the annexation of the province of Griqualand West to the colony of the Cape of Good Hope, and was at once elected to represent the Division of Barkly West in the Cape Legislative Assembly, 1881. He was elected as the first President of the South African Institution of Civil Engineers, Surveyors, and Architects.

The decease of this well-known colonist on 1893 February 22, took everyone by surprise, and was learnt with universal regret. The surveys which he undertook in the Divisions of Colesberg, Albany, Queenstown, Albert, and other Divisions, made him so well known on the frontier that he was welcomed everywhere; his friends numbered all the best-known and worthiest of the inhabitants of the Colony, from the several governors, generals, and executive officers downwards, for the last forty-eight years.

During the whole of his colonial life he was engaged in scientific pursuits, principally astronomical and geological; in the former, since he took a special interest in connection with the survey of the Colony.

Mr. F. H. S. Orpen took the greatest interest in the observations connected with the transit of *Venus*. He also placed his instruments at the service of Dr. Elkin when that astronomer visited Kimberley, and thus enabled him to obtain the first accurate determination of the longitude of that place. D. G.

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Major-General HENRY SPENCER PALMER, R.E., was born at Bangalore, East Indies, on 1838 April 30. He was the third son of Colonel John Freke Palmer, of the Madras Staff Corps, and nephew of Sir Henry James, R.E., F.R.S., formerly Director-General of the Ordnance Survey of Great Britain. He entered the Royal Military Academy in 1856 January, and his lieutenant's commission in the Royal Engineers was dated 1856 December 20. In 1858 September he was appointed to the British Columbian Expedition, and remained with the Expedition till its close in 1863, being actively engaged in making surveys and explorations, some of them of considerable extent. On his return to England in 1864, Lieutenant Palmer was appointed to the Ordnance Survey, proceeding to Tonbridge, Kent, from which place as headquarters he conducted the survey of Kent and East Sussex, and parts of Berks and Bucks. He received his captaincy in 1866, and in 1867 was appointed Assistant Commissioner in the Parliamentary Boundaries Commission.

About this time he was actively engaged with his friend the late Rev. Pierce Butler, of Ulcombe Rectory, Kent, in setting on foot that project of a survey of the Sinaitic peninsula which ultimately—though checked for a time by the sudden death of Mr. Butler—was brought to such a successful issue, and of which the circumstances and results are so well known that it is not necessary to do more than refer to them here. To the magnificent volumes (published by the authority of the Treasury) which were the fruits of that expedition, Captain Palmer contributed largely—some two-fifths of the descriptive matter, together with the computation of the astronomical and other work of the survey, the drawing of several of the maps and plans, and the part editing of the whole work, having fallen to his share.

After returning home from Sinai in 1869 May, Captain Palmer was often called upon to speak and lecture on the subject; and in the next two or three years he thus addressed several important meetings, such as those at the University of Cambridge in 1870, the Church Congress in 1870, and the Archæological Congress in 1872.

In 1873 he was recommended to the Astronomer Royal by Admiral G. H. Richards, then Hydrographer to the Admiralty, for a chief astronomership in the enterprise for observing the transit of Venus. Sir George Airy soon afterwards nominated him as chief of the New Zealand party, a nomination approved by the Admiralty. On this service, after a course of practical preparation at the Royal Observatory, during which he gained the full confidence of Sir George Airy, he left England in 1874 June, accompanied by Lieutenant Darwin, R.E., and Lieutenant Crawford, R.N., as his assistants, and three non-commissioned officers of Engineers as trained practical photographers. (After arrival in New Zealand, this party was strengthened by the addition of Lieutenant Praed, R.N.) He was now Major,

having been promoted to that rank in 1873 December. He resigned his appointment on the Ordnance Survey on 1874 May 31, after being held for $10\frac{1}{4}$ years.

For his exertions and achievements in New Zealand, Major Palmer was very highly praised by the Astronomer Royal, who spoke of his "arrangements for establishing his own station, and for organising the whole country into an assembly of observers," as having been "most admirable, and worthy to be taken as a model in the future" (see Report to the Board of Visitors, 1875); and, later, of his "extensive preparations," as having been "made with the greatest skill and judgment." The weather was so cloudy in New Zealand at the critical phases of the transit, on December 9, that, though every phenomenon that could be seen was carefully observed and noted by Major Palmer, he believed and reported that his observations were valueless. An agreeable surprise, however, awaited him. In 1877, after the eye-observations at all the stations had been reduced and compared, it was found that Major Palmer's, instead of being worth nothing, gave a result of great value, being, in fact, almost identical with the mean derived from the rest of the observers at the other stations; in short, that, as Sir G. Airy remarked, the "preliminary phenomena," which it was found were most to be relied upon, had been "very well observed by him."

Before leaving New Zealand, Major Palmer, at the request of the Governor, the Marquis of Normanby, undertook an investigation of the provincial surveys throughout the Colony, with the view of advising the Government as to the best means of evolving order out of the chaos that then existed, and of placing the whole future system on a uniform, intelligent, and scientific basis. Between three and four months were given to this work, at the end of which Major Palmer submitted a Blue Book Report embodying his results and recommendations, for which he was warmly thanked by the Government, and which was adopted as the guide to subsequent reforms.

After returning from New Zealand in 1879 June, Major Palmer worked for a few months under the Astronomer Royal, reducing his observations and preparing his report. Then, returning to corps duties, he found himself at the head of the roster for foreign service. The Barbados station just then fell vacant, and he was accordingly appointed to the post of Resident Engineer, and sailed from England in 1875 November. In 1876 March, he was appointed to serve as Aide-de-Camp to the Governor of the Windward Islands, Mr. Pope Hennessy, and he remained in this post through the riots of 1876, and up till Mr. Hennessy's departure from the Colony.

At the close of 1877 he was appointed Executive Engineer at Hong Kong, and he left Barbados in 1878 January, and, after a stay of about three weeks in England *en route*, reached Hong Kong in April, shortly afterwards receiving the additional

appointments of Engineer of the Admiralty Works at that station and Aide-de-Camp to the Governor.

In 1881 he drew up a design for a Physical Observatory for Hong Kong, to comprehend Astronomical, Magnetical, Meteorological and Tidal observations. This project and the report accompanying it* were referred to the Kew Committee of the Royal Society, who recommended their adoption without the alteration of a single item; and Major Palmer received the official thanks of the Secretary of State for the Colonies. Though the scheme was afterwards somewhat cut down by the Colonial Office, on the grounds of economy, the present Observatory, as far as it goes, is in conformity with his project—on which competent authorities have since pronounced in terms of the highest approval, insisting that it deserves to rank as a standard guide for constructing observatories of that class in the Colonies or elsewhere.

In 1882 Colonel Palmer was invited to conduct a second time an expedition for observing the transit of *Venus* (1882 December 6), at New Zealand, but declined the offer, having other aims in view. In the same year he made an exact determination of the latitude of the proposed Hong Kong Observatory Station (on Mount Elgin, Kaûlung), with observatory instruments lent for the purpose from the U.S. surveying-vessel *Palos*.

From 1883 onwards, Colonel Palmer did much engineering work in Yokohama. He designed and carried out extensive water works and harbour works; and his services to the Japanese Government were recognised by the third-class decoration of the Order of the Rising Sun from the Emperor of Japan in 1887. His graphic and interesting letters from “Our own Correspondent in Japan,” which appeared in the columns of the *Times*, gave much valuable information about that country. In 1887 he retired from the Corps of Royal Engineers with the honorary rank of Major-General.

He had married in 1863 the eldest daughter of the Ven. Archdeacon Wright.

He was elected a Fellow on 1874 January 9, and in 1876 contributed to the Society a paper concerning the methods of the U.S. Coast Survey (*Monthly Notices*, vol. xxxvi. p. 300).

He died at Tokio on 1893 March 10.

CHARLES PRITCHARD was born at Alberbury, Shropshire, on 1808 February 29, being the fourth son of Mr. William Pritchard. After a few years at a private school at Uxbridge, he was admitted to Merchant Taylors' School in 1819 January, his attendance as a day-boy involving a long walk of four miles, in all weathers, before commencing work at 7 A.M.—a severe experience for a boy of 11. After a year and a half, he was removed to a school at Poplar, where the foundation of his

* See *Hong Kong Blue-books*, 1881.